

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: August 9, 2002, 20:00:17 ; Search time 30.29 seconds
(without alignments)
381.369 Million cell updates/sec

Title: US-09-622-613a-2

Perfect score: 576

Sequence: 1 DQMLTFQKHLNTRDVCN.....TFCVCENQAPVHVCVCHC 104

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues

Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

A_Geneseq_032802.*
1: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1980.DAT:*
2: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1981.DAT:*
3: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1982.DAT:*
4: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1983.DAT:*
5: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1984.DAT:*
6: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1985.DAT:*
7: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1986.DAT:*
8: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1987.DAT:*
9: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1988.DAT:*
10: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1989.DAT:*
11: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1990.DAT:*
12: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1991.DAT:*
13: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1992.DAT:*
14: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1993.DAT:*
15: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1994.DAT:*
16: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1995.DAT:*
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19: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1998.DAT:*
20: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA1999.DAT:*
21: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA2000.DAT:*
22: /SIDSL/gcgdata/hold-geneseq/geneseq-emb1/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	569	98.8	104	20	AA128865 Rana pipiens liver
2	569	98.8	105	20	AA128867 Recombinant Met(-1
3	569	98.8	127	20	AA128879 Rana pipiens Clone
4	566	98.3	104	20	AA128866 Recombinant RapR1
5	566	98.3	105	20	AA128869 Recombinant Met(-1
6	564	97.9	104	20	AA128870 Recombinant RapR1
7	564	97.9	105	20	AA128871 Recombinant Met(-1
8	549	95.3	104	18	AAW06544 Antitumour protein
9	547	95.0	104	18	AAW30301 Recombinant onc pr
10	547	95.0	104	22	AA131666 Amino acid sequenc
11	547	95.0	379	18	AAW3126 R. pipiens recombi

12	544	94.4	104	12	AA12344	Protein with activ
13	544	94.4	104	15	AA147303	ONCONASE (pharmac
14	544	94.4	104	17	AAW00736	protein derived fr
15	544	94.4	104	18	AAW06543	Antitumour protein
16	544	94.4	104	18	AAW14065	Onconase (RTM) pro
17	544	94.4	104	20	AA133322	Frog onconase prot
18	544	94.4	104	20	AAW88233	Rana pipiens RNase
19	544	94.4	105	18	AAW35123	R. pipiens recombi
20	544	94.4	105	20	AA139400	Recombinant frog O
21	544	94.4	355	18	AAW35125	R. pipiens recombi
22	544	94.4	358	18	AAW35130	R. pipiens recombi
23	542	94.1	106	18	AAW35122	R. pipiens recombi
24	542	94.1	107	18	AAW35117	R. pipiens recombi
25	542	94.1	112	18	AAW35118	R. pipiens recombi
26	542	94.1	251	18	AAW35134	R. pipiens recombi
27	542	94.1	254	18	AAW35135	R. pipiens recombi
28	542	94.1	355	18	AAW35129	R. pipiens recombi
29	542	94.1	355	18	AAW35133	R. pipiens recombi
30	542	94.1	366	18	AAW35132	R. pipiens recombi
31	541	93.9	104	18	AAW30302	Recombinant onc pr
32	539	93.6	104	18	AAW18224	Antitumour generic
33	539	93.6	104	22	AA131667	Amino acid sequenc
34	537	93.2	105	18	AAW35115	R. pipiens recombi
35	537	93.2	105	18	AAW35116	R. pipiens recombi
36	533	92.5	358	18	AAW35127	R. pipiens recombi
37	533	92.5	365	18	AAW35131	R. pipiens recombi
38	518	89.9	107	18	AAW35120	R. pipiens recombi
39	481	83.5	360	18	AAW35128	R. pipiens recombi
40	474.5	82.4	111	18	AAW35121	R. pipiens recombi
41	436	75.7	83	18	AAW35119	R. pipiens recombi
42	436	75.7	83	20	AAW88234	Rana pipiens RNase
43	288	50.0	111	20	AA133321	Frog lectin protei
44	280.5	48.7	110	20	AA128872	Rana catesbeiana o
45	280.5	48.7	111	20	AA128873	Recombinant Met(-1

ALIGNMENTS

AA128865	25-JAN-2000 (first entry)	Rana pipiens liver ribonuclease (RapR1).
AA128865		Rana pipiens liver ribonuclease; RapR1; covalently bound; LL2 antibody;
AA128865		ligand binding moiety; CD22; cancerous B cell; Kaposi's Sarcoma; frog;
AA128865		human chorionic gonadotropin; hCG; recombinant ribonuclease; RNase;
AA128865		signal peptide; cytotoxic fusion protein; cancer; autoimmune disease.
AA128865		Rana pipiens.
AA128865		WO9950398-A2.
AA128865		07-OCT-1999.
AA128865		26-MAR-1999; 99WO-US06641.
AA128865		27-MAR-1998; 98US-0079751.
AA128865		(USSH) US DEPT HEALTH & HUMAN SERVICES.
AA128865		Newton DL, Rybak SM;
AA128865		WPI; 1999-610847/52.
AA128865		N-PSDB; AA208124.
AA128865		New recombinant ribonucleases, used for killing target cells; e.g. for
AA128865		treating cancers, viral infections or autoimmune diseases

PS Claim 4; Page 59; 71pp; English.

The present sequence is a recombinant Rana pipiens ribonuclease protein (RapiRL) with Met at position 1 attached to (His)6 tag and Met24Leu. Carboxy terminal end of recombinant RapiRL has a covalently bound ligand binding moiety, which can be a LL2 antibody directed against CD22 on cancerous B cells or human chorionic gonadotropin (hCG) effective against Kaposi's sarcoma cells. Recombinant ribonucleases can be expressed in bacteria without an N-terminal methionine due to the presence of a signal peptide that is cleaved by bacteria. The soluble expression of ribonuclease allows the proteins to be fused in-frame with ligand binding moieties to form cytotoxic fusion proteins. They can be used for treatment of cancer and autoimmune diseases.

50 Sequence 105 AA;

Query Match	98.3%	Score 566	DB 20	Length 105
Best Local Similarity	98.1%	Pred. No. 9	8e-62	
Matches 102	Conservative	1	Mismatches 1	Indels 0
				Gaps 0

```
QY      1 QDWLEFGKKHLNTRDVCNIIMSTNLHFCKDKNTFIYSRPEVKALICGIIASKNVLT 60
        |||||::|||||
Db      2 qdwlftgkhlntcrdvdcnmlstnlfhckdkntfiysrpevkaicxgiasknvltt 61
```

```

QY      61 SEFYLSDCNVTSRPCKYKILKSTNFCVTCENQAPVHFVGVGH 104
        |||||||
Db      62 sefYlSdcnvtsrPckYkIlkstnfCvtcEnqApvhfVgVghc 105

```

RESULT	6
AAV28870	
ID	AAV28870 standard; Protein; 104 AA

XX 25-JAN-2000 (first entry)
DT

Recombinant RAPRI GlnSer amino acid sequence.

KM Recombinant Rana pipiens ribonuclease; RAP1a G145ter; covalently bound
KM L12 antibody; ligand binding moiety; CD22; cancerous B cell; frog
KM Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;
KM recombinant ribonuclease; cytotoxic fusion protein; cancer; RNase;
KM autoimmune disease.

OS	Rana pipiens.
OS	Synthetic.

FT	Key	Location/Qualifiers
FT	Misc-difference	1
FT		/note- "Wild type Gln replaced with Ser"

PN W09950398-A2.

PD 07-OCT-1999.

PF 26-MAR-1999; 99WO-US06641.

PR 27-MAR-1998; 98US-0079751.

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

PI Newton DL, Rybak SM;

DR WPI; 1999-610847/52.

XX
XX

PT New recombinant ribonucleases, used for killing target cells, e.g. for
PT treating cancers, viral infections or autoimmune diseases -
XX
PS Claim 34, Page 60, 71pp; English.

CC The present sequence is a recombinant Rana pipiens ribonuclease (RapR1)
CC protein with Glu1Ser. Carboxy terminal end of recombinant RapR1 has a
CC covalently bound ligand binding moiety, which can be a LL2 antibody
CC directed against CD22 on cancerous B cells or human chorioc
CC gonadotropin (hcG) effective against Kaposi's sarcoma cells. Recombinant
CC ribonucleases can be expressed in bacteria without an N-terminal
CC methionine due to the presence of a signal peptide that is cleaved by
CC bacteria. The soluble expression of ribonuclease allows the proteins to
CC be fused in-frame with ligand binding moieties to form cytotoxic fusion
CC proteins. They can be used for treatment of cancer and autoimmune
CC diseases.
XX
SQ Sequence 104 AA;

Sequence	104 AA;
5Q	

Query Match	97.9%	Score 564	DB 20	length 104
Best Local Similarity	99.0%	Pred. No.	1.7e-61	
Matches 102; Conservative	0	Mismatches	1	Indels 0; Gaps 0

QY 2 DWLTFQKKHLNTRDVCNIMSTNLFHCKDKNTFIYSRPEYKALCIGIASKNVLTTS 61
|||||
Db 2 dwtlftgkhhltatrcdvdcnimsnlfhckdkntfiysrpeykalcigiasnvlts 61

Qy	62	EFYLSDCNVTSRPCKYKLLKSTNTFCVTCENQAPVHFVGVGHC	104
Db	62	efylsdcnvtsrpckylkfstntfcvtcengapvhfvvgvnc	104

```

RESULT      7
AAV28871
ID  AAV28871 standard; Protein; 105 AA

```

XX 25-JAN-2000 (first entry)
DT

Recombinant Met(-1) RAPRI GlnSer amino acid sequence

KM Reombinant Mel(-1) Rana pipiens ribonuclease GlnSer; RApR1; C022;
KM covalently bound; EL2 antibody; ligand binding moiety; carcinosus B cell
KM Kaposi's sarcoma; human chorionic gonadotropin; hCG; signal peptide;
KM recombiant ribonuclease; cytotoxic fusion protein; cancer; troy;
KM autoimmune disease; RNase.

OS Rana pipiens.
OS Synthetic.

FT	/note=	"Met not found in wild type RAP1"
FT	Misc-difference	
FT	2	
FT	/note=	"Wild type Gln replaced with Ser"

PN W09950398-A2.

PD 07-OCT-1999.

PF 26-MAR-1999; 99WO-US06641.

PR 27-MAR-1998; 98US-0079751.

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

PI Newton DL, Rybak SM;

DR WPI; 1999-610847/52.

XX

PT New recombinant ribonucleases, used for killing target cells, e.g. for
 PT treating cancers, viral infections or autoimmune diseases -
 XX
 PS Claim 34, Page 61, 71pp; English

CC The present sequence is a recombinant Rana pipiens ribonuclease (RaplR1)
CC protein with Met at position 1 and Glu2Ser. Carboxy terminal end of
CC recombinant RapLR1 has a covalently bound ligand binding moiety, which
CC can be a L12 antibody directed against CD22 on cancerous B cells or human
CC chorionic gonadotropin (hCG) effective against Kaposi's sarcoma cells.
CC Recombinant ribonucleases can be expressed in bacteria without an N-
CC terminal methionine due to the presence of a signal peptide that is
CC cleaved by bacteria. The soluble expression of ribonuclease allows the
CC proteins to be fused in-frame with ligand binding moieties to form
CC cytotoxic fusion proteins. They can be used for treatment of cancer and
CC autoimmune diseases.
XX
SQ Sequence 105 AA:

Query Match 97.9%; Score 564; DB 20; Length 105;
Best Local Similarity 99.0%; Pred. No. 1.7e-61;
Matches 102; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 2 DMLTFQKKHLTNRDVCNITMSTNLFHCKDKNTFTYSRPEPKAICGIIASKNVLTTS 61
Db 3 dwtltfgkhhltntdrvdcmimstnlfhckdkntftysrpepkalkcgliasknvlts 62
QY 62 EFYLSDCNVTSPCKYKYLKSKSTNFCVTCENQAPVHFVGHC 104
Db 63 efylsdcnvtsrpkckylkksntkfcvtcengqapvhtvgvghc 105

RESULT 8

AAW06544
ID AAW06544 standard; protein; 104 AA.

XX
AC AAW06544;

XX
DT 22-AUG-1997 (first entry)

XX
DE Antitumour protein from Rana pipiens oocytes.

XX
KM Tumour; chemotherapy; radiotherapy; frog.

XX
OS Rana pipiens.

XX
PN WO9639428-A1.

XX
PD 12-DEC-1996.

XX
PF 03-JUN-1996; 96WO-US08304.

XX
PR 06-JUN-1995; 95US-0467955.

XX
PA (ALFA-) ALFACELL CORP.

XX
PI Ardelit WJ;

XX
DR WPI; 1997-043063/04.

XX
PT Antitumour proteins from Rana pipiens oocyte(s) - have fewer
PT disadvantages than chemotherapy, surgery and radiotherapy

XX
PS Claim 8; Page 28; 45pp; English.

CC The present sequence is a specifically claimed example of an
CC antitumour protein from the generic protein in AAW16224, with the
CC molecular weight 12000. This is one of two preferred proteins (the
CC other in AAW06543) that have been isolated from Rana pipiens oocytes.
CC Both proteins have a blocked amino terminal group and are essentially
CC free of carboxydrates. The proteins are used to treat tumours. Use of
CC the peptides has fewer disadvantages than chemotherapy, radiotherapy
CC and surgery in the treatment of tumours.
XX
SQ Sequence 104 AA:

Query Match 95.3%; Score 549; DB 18; Length 104;
Best Local Similarity 95.2%; Pred. No. 1.2e-59;
Matches 99; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
QY 1 QDWLTFQKKHLTNRDVCNITMSTNLFHCKDKNTFTYSRPEPKAICGIIASKNVLT 60
Db 1 edwtltfgkhhltntdrvdcmimstnlfhckdkntftysrpepkalkcgliasknvl 60
QY 61 SEFYLSDCNVTSPCKYKYLKSKSTNFCVTCENQAPVHFVGHC 104
Db 61 sefylsdcnvtsrpkckylkksntkfcvtcengqapvhtvgvghc 104

RESULT 9

AAW30301
ID AAW30301 standard; protein; 104 AA.

XX
AC AAW30301;

XX
DT 09-JUN-1998 (first entry)

XX
DE Recombinant onc protein.

XX
KM Onc; oncanase; ribonuclease; frog; antitumour; pancreatic cancer;

XX
KW human immunodeficiency virus type-1; HIV1; replication.

XX
OS Rana pipiens.

XX
PN WO9738112-A1.

XX
PD 16-OCT-1997.

XX
PF 04-APR-1997; 97WO-US05675.

XX
PR 04-APR-1996; 96US-0626288.

XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX
PI Ardelit W, Boix E, Vasandani VM, Wu YN, Youle RJ;

XX
DR WPI; 1997-512725/47.

XX
PT Recombinant Onc protein with glutamine residue at position 1 -
PT useful as antitumour and antiviral agent, also as cell culture
PT selection agent

XX
PS Claim 1; Page 28; 35pp; English.

CC This sequence represents a recombinant Onc protein comprising a 104 amino
CC acid sequence having Gln at position 1. Onc, a ribonuclease from Rana
CC pipiens oocytes, is known as an antitumour agent (e.g. for treating
CC pancreatic cancer) and inhibitor of human immunodeficiency virus type-1
CC replication. It can be used therapeutically or as a cell-culture
CC selection agent, e.g. to identify gene therapy compositions able to
CC inhibit tumour growth.
XX
SQ Sequence 104 AA:

Query Match 95.0%; Score 547; DB 18; Length 104;
Best Local Similarity 95.2%; Pred. No. 2.1e-59;
Matches 99; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 QDWLTFQKKHLTNRDVCNITMSTNLFHCKDKNTFTYSRPEPKAICGIIASKNVLT 60

Db 1 qdwtltfgkhhltntdrvdcmimstnlfhckdkntftysrpepkalkcgliasknvl 60

QY 61 SEFYLSDCNVTSPCKYKYLKSKSTNFCVTCENQAPVHFVGHC 104

Db 61 sefylsdcnvtsrpkckylkksntkfcvtcengqapvhtvgvghc 104

RESULT 10

AAB31666
ID AAB31666 standard; protein; 104 AA.
XX
AC AAB31666;
XX
XX
DT 30-APR-2001 (first entry)
XX
DE Amino acid sequence of a frog ribonuclease protein.
XX
XX
KW Frog; ribonuclease; ranplrnase; RNase.
XX
OS Rana pipiens.
XX
XX
FH Key
FT Modified-site 1
FT /note= "this gin is autocyclised to pyroglutamic acid"
XX
XX
PN US6175003-B1.
PD 16-JAN-2001.
XX
XX
PF 10-SEP-1999; 99US-0394268.
XX
XX
PR 10-SEP-1999; 99US-0394268.
XX
XX
PA (ALFA-) ALFACELL CORP.
XX
XX
PI Saxena SK;
XX
XX
DR WPI: 2001-167808/17.
XX
XX
PT New nucleic acids encoding a ribonuclease (Rnase), useful for the
XX precise targeting of Rnase to a predetermined cell receptor
XX
XX
PS Claim 1: Columns 5-6; 7pp; English.
XX
XX
CC The present sequence represents a frog ribonuclease protein (ranplrnase)
CC (Rnase). The specification describes a synthetic ribonuclease protein,
CC in which the addition of cysteine in the ribonuclease facilitates the
CC chemical linking of a targeting molecule by the single reactive
CC sulfhydryl group. The specification also describes a method for the
CC production of ranplrnase using DNA technology instead of processing
CC biological material. The re-engineering of the protein molecule allows
CC easier attachment to a targeting molecule thereby making it possible for
CC the ribonuclease to be delivered to a particular cell receptor where it
CC might be most effective.
XX
XX
SQ Sequence 104 AA:

Query Match 95.0%; Score 547; DB 22; Length 104;
Best Local Similarity 95.2%; Pred. No. 2.1e-59;
Matches 99; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 ODWLTFOKKHILNTRPVDCNIIMSTNLFHCKDKNTFYSRPEPVKAICKGIISKVNLTT 60
DB 1 qdwltfgqkhhltnttrvdcdnlnstlnlfhckdknltfysrpepvkalcgylasknvltt 60
QY 61 SEFYLSDCNVTSRPCKYKIKLKSTNFCVTCENQAPVHFVGVC 104
DB 61 sefylsdcnvtstrpckykiklkstnfcvtcenqapvhfvgvc 104

RESULT 11
AAM35126
ID AAM35126 standard; Protein; 379 AA.
XX
AC AAM35126;
XX
XX
DT 20-APR-1998 (first entry)
XX
XX
DE R. pipiens recombinant Rnase ronc fusion protein 2.
XX

KW Rnase A; ribonuclease; cytotoxic; onconase; nonc; immunofusion;
KW tumour cell growth; frog.
XX
XX
OS Rana pipiens.
XX Synthetic.
XX
XX
PN WO9731116-A2.
XX
XX
PD 28-AUG-1997.
XX
XX
PF 19-FEB-1997; 97WO-US02588.
XX
XX
PR 21-FEB-1996; 96US-0011800.
XX
XX
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
XX
PI Bogue L., Newton DL, Rybak SM, Wlodawer A;
XX
XX
DR WPI: 1997-435168/40.
XX
XX
DR N-PSDB; AAT94964.
XX
XX
PT Ribonuclease molecules based on native Onconase - used for killing
XX cells, particularly tumour cells
XX
XX
PS Disclosure; Page 68; 90pp; English.
XX
XX
CC Sequences AAM35125 to AAM35135 represent recombinant fusion proteins
CC (ronc) which are modifications of the Rnase Onconase (RTM) (nonc). Such
CC novel ribonuclease molecules are highly cytotoxic and can be used alone
CC or to form chemical conjugates or to target recombinant immunofusions.
CC They are used particularly for decreasing tumour cell growth. They can
CC also be used for cell separation in vitro by selectively killing unwanted
CC types of cells, e.g. in bone marrow prior to transplantation into a
CC patient undergoing marrow ablation by radiation, or for killing leukaemia
CC cells or T-cells that would cause graft versus host disease. The toxins
CC can also be used to selectively kill unwanted cells in culture. The new
CC ribonucleases have increased cytotoxic activity compared to nonc and
CC also lower immunogenicity in humans.
XX
XX
SQ Sequence 379 AA:

Query Match 95.0%; Score 547; DB 18; Length 379;
Best Local Similarity 95.2%; Pred. No. 1.1e-58;
Matches 99; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

QY 1 ODWLTFOKKHILNTRPVDCNIIMSTNLFHCKDKNTFYSRPEPVKAICKGIISKVNLTT 60
DB 26 qdwltfgqkhhltnttrvdcdnlnstlnlfhckdknltfysrpepvkalcgylasknvltt 85
QY 61 SEFYLSDCNVTSRPCKYKIKLKSTNFCVTCENQAPVHFVGVC 104
DB 86 sefylsdcnvtstrpckykiklkstnfcvtcenqapvhfvgvc 129

RESULT 12
AAR12344
ID AAR12344 standard; protein; 104 AA.
XX
XX
AC AAR12344;
XX
XX
DT 08-AUG-1991 (first entry)
XX
XX
DE Protein with activity against cancer cells.
XX
XX
KW Frog eggs; Tamoxifen; Stelazine; cancer.
XX
XX
OS Rana pipiens.
XX
XX
PN WO9107435-A.
XX
XX
PD 30-MAY-1991.
XX

PF 26-OCT-1990; 90WO-US06185.
 XX
 XX 18-MAY-1990; 90US-0526314.
 PR 13-NOV-1989; 89US-0436141.
 XX
 PA (ALFA-) ALFACELL CORP.
 XX
 PI Ardelit WJ, Mikulski SM;
 XX
 DR WPI; 1991-178059/24.
 XX
 PT New protein from fertilised eggs of Rana pipiens - active against
 PT cancer cells, esp. in combination with Tamoxifen or Stelazine
 PT (trifluoro-per-azine).
 XX
 PS Claim 7; Fig 2; 33pp; English.
 CC The protein is derived from fertilised frog eggs. It has an iso-
 CC electric point of 9.5 - 10.5, a blocked N-terminal gp. and is free
 CC of carbohydrates. It is active against certain cancer cells. The
 CC combination of the protein and (2-1-p-dimethylaminoethoxyphenyl)-1,
 CC 2-diphenyl-1-butene) citrate salt (Tamoxifen) is much more bio-
 CC active than the separate entities against human pancreatic Asp-1
 CC adenocarcinoma, and the combination of protein and (10-(3-(4-methyl
 CC piperazin-1-yl)-propyl)-2-trifluoromethylphenothiazine (Stelazine)
 CC is much more reactive than the separate entities against human lung
 CC A-549 carcinoma. Activity has also been shown against human sub-
 CC maxillary epidermoid carcinoma A-253 cells, human ovarian adeno-
 CC carcinoma NIH-OVCAR-3 cells, human leukaemic HL-60 cells, human
 CC COLO 320 DM cells, human LOX melanoma and human lung squamous car-
 CC cinoma HT-520 cells.
 XX
 SQ Sequence 104 AA;

Query Match 94.4%; Score 544; DB 12; Length 104;
 Best Local Similarity 94.2%; Pred. No. 4.9e-59;
 Matches 98; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 ODWLTFOKKHILNTRDVCNIIIMSTNLFHCKDKNTFIYSRPEPKAIKGIASKNVLT 60
 DB 1 edwlitfgkhhlntrdvcndmstnlfhckdkntfiysrpepkaikgiasknvltt 60
 QY 61 SEFIISDCNVTSRPCKRYKLRKSTNFCVTCENQAPVHFVGVGHC 104
 DB 61 sefjlsdcnvtsrpckryklrkstnfctvcenqapvhfvvgsc 104

RESULT 13
 AAR47303
 ID AAR47303 standard; protein; 104 AA.
 XX
 AC AAR47303;
 XX
 DT 09-SEP-1994 (first entry)
 XX
 DE ONCONASE (pharmaceutical protein).
 XX
 KW Oncinase; pharmaceutical; protein; adenocarcinoma; treatment;
 KW cisplatin; melphalan; adriamycin; ovarian cancer; ovary.
 XX
 OS Synthetic.
 XX
 PN WO9403197-A.
 PD 17-FEB-1994.
 XX
 PF 02-JUL-1993; 93WO-US06357.
 XX
 PR 30-JUL-1992; 92US-0921180.
 XX
 PA (ALFA-) ALFACELL CORP.
 XX

PI Ardelit WJ, Mikulski SM;
 XX
 DR WPI; 1994-065396/08.
 XX
 PT Pharmaceutical confg. Cisplatin, Melphalan or Adriamycin - active
 PT in-vitro against OVCAR-3 human ovarian adenocarcinoma cells
 XX
 PS Claim 7; Page 13; 18pp; English.
 CC This pharmaceutical protein (ONCONASE) is used in the production of
 CC a bioactive pharmaceutical composition also comprising one of
 CC Cisplatin (cis-diaminedichloroplatinum), Melphalan, (4-[bis-(2-
 CC chloroethyl)amino]-L-phenylamine) or Adriamycin (Doxorubicin HCl).
 CC The composition has bioactivity in vitro against OVCAR-3 human
 CC ovarian adenocarcinoma cells.
 XX
 SQ Sequence 104 AA;

Query Match 94.4%; Score 544; DB 15; Length 104;
 Best Local Similarity 94.2%; Pred. No. 4.9e-59;
 Matches 98; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 ODWLTFOKKHILNTRDVCNIIIMSTNLFHCKDKNTFIYSRPEPKAIKGIASKNVLT 60
 DB 1 edwlitfgkhhlntrdvcndmstnlfhckdkntfiysrpepkaikgiasknvltt 60
 QY 61 SEFIISDCNVTSRPCKRYKLRKSTNFCVTCENQAPVHFVGVGHC 104
 DB 61 sefjlsdcnvtsrpckryklrkstnfctvcenqapvhfvvgsc 104

RESULT 14
 AAM00736
 ID AAM00736 standard; protein; 104 AA.
 XX
 AC AAM00736;
 XX
 DT 22-MAY-1997 (first entry)
 XX
 DE Protein derived from frogs eggs.
 XX
 KW Rana pipiens; ovarian adenocarcinoma NIH-OVCAR03 cell; frog; egg;
 KW submaxillary epidermoid carcinoma A-253 cell; tumour; human;
 KW leukaemic HL-60 cell; COLO 320 DM cell; colon adenocarcinoma;
 KW LOX melanoma; lung squamous carcinoma HT-520 cell.
 XX
 OS Rana pipiens.
 XX
 PN US559212-A.
 PD 24-SEP-1996.
 XX
 PF 06-APR-1988; 88US-0178118.
 XX
 PR 03-FEB-1992; 92US-0814332.
 PR 06-APR-1988; 88US-0178118.
 PR 13-NOV-1989; 89US-0436141.
 PR 01-AUG-1994; 94US-0283970.
 XX
 PA (ALFA-) ALFACELL CORP.
 XX
 PI Ardelit WJ;
 XX
 DR WPI; 1996-442459/44.
 XX
 PT New isolated Rana pipiens frog protein - useful for the treatment of
 PT tumours.
 XX
 PS Claim 1; Column 8; 7pp; English.
 CC This sequence represents a protein which was prepared by homogenisation
 CC of Rana pipiens frogs eggs. This protein is used for treating tumours

CC In humans. Especially this protein was active against human
 CC submaxillary epidermoid carcinoma A-253 cells, human ovarian
 CC adenocarcinoma NH-OVCAR3 cells, human leukemic HL-60 cells, human
 CC COLO 320 DM cells originally isolated from colon adenocarcinoma, human
 CC LOX melanoma and human lung squamous carcinoma HT-520 cells.
 XX
 SQ Sequence 104 AA:

Query Match 94.4%; Score 544; DB 17; Length 104;
 Best Local Similarity 94.2%; Pred. No. 4.9e-59;
 Matches 98; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 QDWLTFQKKHLTNRDVCNIIIMSTNLFHCKDKNTFIYSRPEPVKAICKGIASKNVLT 60
 :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
 Db 1 edwltfqqkhltntrdvcdnlnstlnlfhckdkntfiysrpepvkaickgiasknvl 60
 QY 61 SEFYLSDCNVTSPCKYKIKKSTNFCVTCENQAPVHFVGSGHC 104
 :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
 Db 61 sefylsdcnvtspckykikstnfcvtcenqapvhfvgvsgc 104

RESULT 15

AAW06543
 ID AAW06543 standard; protein; 104 AA.
 XX
 AC AAW06543;

DT 22-AUG-1997 (first entry)

DE Antitumour protein from Rana pipiens oocytes.

KW Tumour; chemotherapy; radiotherapy; frog.

OS Rana pipiens.

PN WO9639428-A1.

PD 12-DEC-1996.

PF 03-JUN-1996; 96WO-US08304.

PR 06-JUN-1995; 95US-0467955.

PA (ALFA-) ALFACELL CORP.

PI Ardelt WJ;

DR WPI: 1997-043063/04.

PT Antitumour proteins from Rana pipiens oocyte(s) - have fewer
 PT disadvantages than chemotherapy, surgery and radiotherapy
 XX
 PS Claim 7; Page 27; 45pp; English.

CC The present sequence is a specifically claimed example of an
 CC antitumour protein from the generic protein in AAW18224, with the
 CC molecular weight 12000. This is one of two preferred proteins (the
 CC other in AAW06544) that have been isolated from Rana pipiens oocytes.
 CC Both proteins have a blocked amino terminal group and are essentially
 CC free of carbohydrates. The proteins are used to treat tumours. Use of
 CC the peptides has fewer disadvantages than chemotherapy, radiotherapy
 CC and surgery in the treatment of tumours.

SQ Sequence 104 AA:

Query Match 94.4%; Score 544; DB 18; Length 104;
 Best Local Similarity 94.2%; Pred. No. 4.9e-59;
 Matches 98; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 1 QDWLTFQKKHLTNRDVCNIIIMSTNLFHCKDKNTFIYSRPEPVKAICKGIASKNVLT 60
 :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||

Db 1 edwltfqqkhltntrdvcdnlnstlnlfhckdkntfiysrpepvkaickgiasknvl 60
 QY 61 SEFYLSDCNVTSPCKYKIKKSTNFCVTCENQAPVHFVGSGHC 104
 :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
 Db 61 sefylsdcnvtspckykikstnfcvtcenqapvhfvgvsgc 104

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 Job time: 248 sec